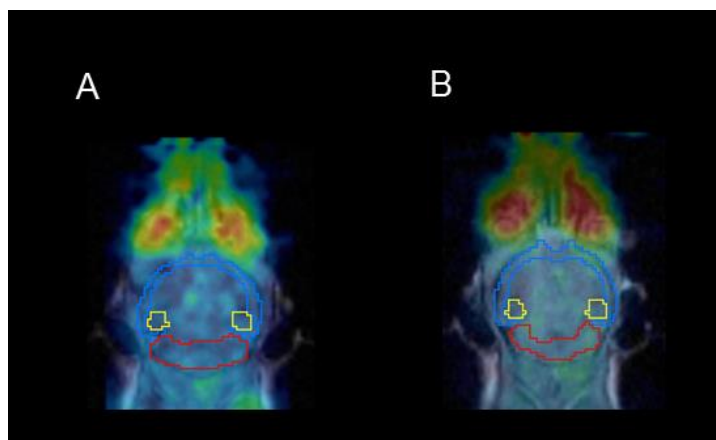
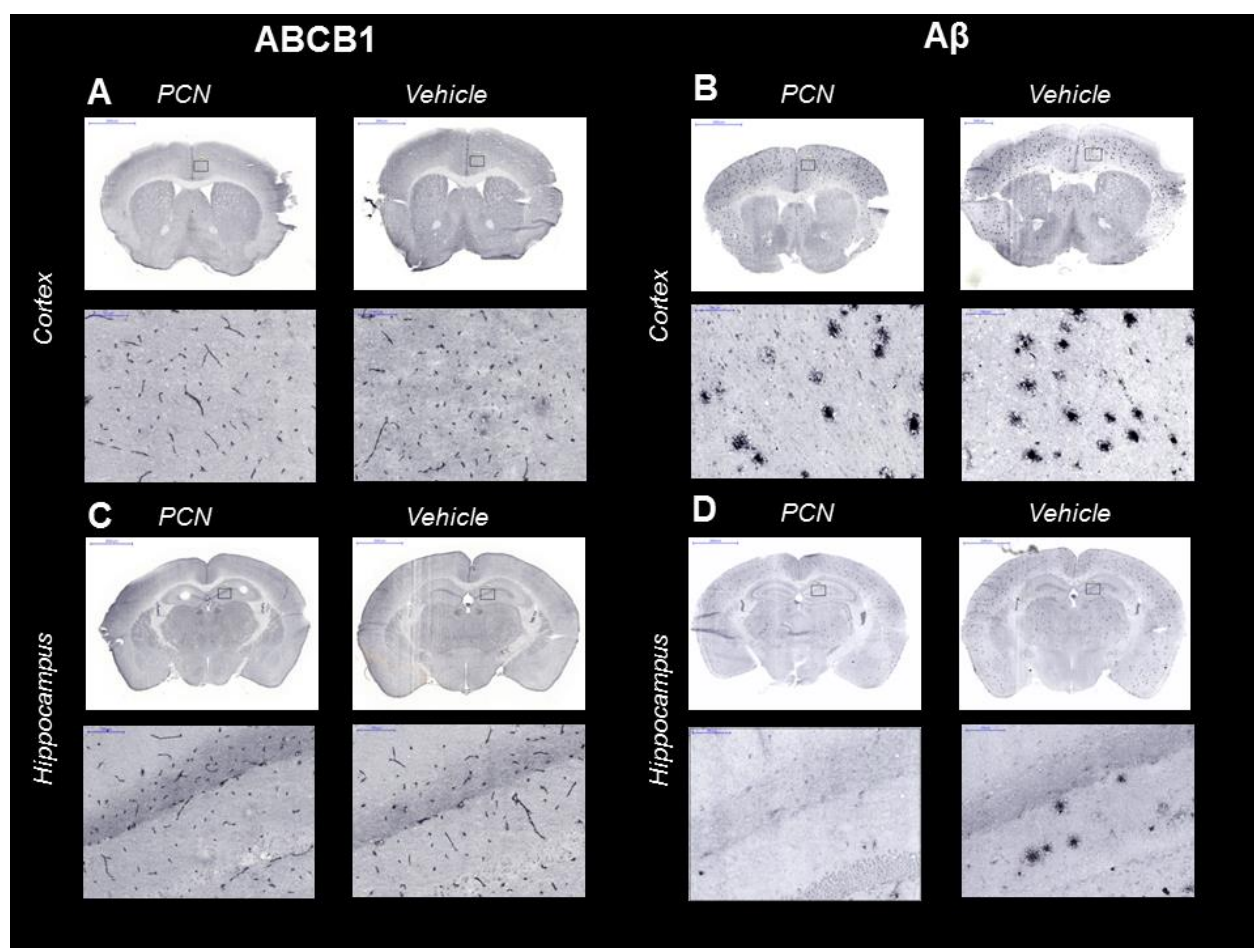


SUPPLEMENTAL FIGURE 1. Total radioactivity (mean \pm SD) in venous blood (A) and venous plasma (B) of samples collected at the end of the PET scan for wild-type and APP/PS1-21 mice aged 170 days at baseline and after treatment with PCN or vehicle. ns, not significant, one-way ANOVA followed by Tukey's multiple comparison test



SUPPLEMENTAL FIGURE 2. Representative coronal MR co-registered PET summation images (0-90 min) in one wild-type mouse (A) aged 170 days and one APP/PS1-21 mouse (B) aged 170 days. The outlined regions of interest are shown: cortex (blue), hippocampus (yellow) and cerebellum (red). The cerebellum served as a control region without A β deposits (but with ABCB1 expression).



SUPPLEMENTAL FIGURE 3. Immunohistochemical staining of ABCB1 in brain microvessels (A, C) and Aβ (B, D) in the cortex and hippocampus of APP/PS1-21 mice aged 170 days treated with PCN or vehicle (scale bar=2000 μm). An enlarged section of the area is shown at a 20x magnification below each image (scale bar=100 μm).

SUPPLEMENTAL TABLE 1.

Metabolism of ^{11}C -Metoclopramide*

Wild-type[†] APP/PS1-21[†] PCN-treated^{††}

<i>n</i>	3	4	3
Plasma	39±8	24±2 [§]	24±4 [§]
Brain	92±4	82±7	86±7
Liver	78±3	61±3 [§]	64±6 [§]
Kidney	66±4	63±5	58±3
Bile	56±9	33±10	45±21
Urine	53±8	40±12	39±20

*Stated is the mean±SD percentage of unchanged ^{11}C -metoclopramide in different tissues and fluids determined with radio-thin-layer chromatography at 15 min after injection of ^{11}C -metoclopramide

[†]Animals were i.p. pretreated for 7 days once daily with PCN vehicle (5% dimethyl sulfoxide in safflower oil)

^{††}Animals (wild-type: *n*=1, APP/PS1-21: *n*=2) were i.p. pretreated for 7 days once daily with PCN (25 mg/kg)

[§]*P*<0.05, for comparison with wild-type, one-way ANOVA followed by a Tukey's multiple comparison test

SUPPLEMENTAL TABLE 2

$k_{E,brain}$ Values in All Examined Animal Groups

Group	Region	$k_{E,brain}$ (1/h)
Wild-type baseline	Hippocampus	0.650±0.074
	Cortex	0.665±0.063
	Cerebellum	0.775±0.093
Wild-type PCN	Hippocampus	1.003±0.157
	Cortex	0.958±0.155
	Cerebellum	1.059±0.145
Wild-type vehicle	Hippocampus	0.722±0.055
	Cortex	0.758±0.059
	Cerebellum	0.934±0.152
APP/PS1-21 baseline	Hippocampus	0.704±0.094
	Cortex	0.660±0.070
	Cerebellum	0.812±0.109
APP/PS1-21 PCN	Hippocampus	0.938±0.083
	Cortex	0.918±0.089
	Cerebellum	1.023±0.073
APP/PS1-21 vehicle	Hippocampus	0.733±0.100
	Cortex	0.711±0.093
	Cerebellum	0.841±0.115
Wild-type baseline (50d)	Hippocampus	0.882±0.065
	Cortex	0.743±0.044
	Cerebellum	0.893±0.027
APP/PS1-21 baseline (50d)	Hippocampus	0.817±0.108
	Cortex	0.739±0.088
	Cerebellum	0.830±0.097

Values are reported as mean±standard deviation.

$k_{E,brain}$ (1/h), elimination slope for radioactivity washout from the brain